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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,302	06/05/2000	Hoa Thu Tran	NCRC-0011-US(9172)	7601
26890	7590	01/27/2005	EXAMINER	
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479			ANYA, CHARLES E	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicant(s)

09/587,302

Applicant(s)

TRAN ET AL.

Examiner

Charles E Anya

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,9-11,13-16,19-21 and 23-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9-11,13-16,19-21 and 23-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-3,5,7,9-11,13-16,19-21 and 23-35 are pending in this application.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3,5,7,9-11,20,23,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,802,367 to Held et al. in view of U.S. Pat. No. 5,748,896 to Daly et al.**

4. As to claim 1, Held teaches a method of controlling software components in a processing system having plural nodes (figures 3/6), comprising: receiving a request to start the processing system (“...activation request...” Col. 10 Ln. 34 – 39, Col. 12 Ln. 1 – 7); launching a start routine in a first one of the nodes in response to the request (“...StartObjectServer...” Col. 13 Ln. 33 – 42); the start routine causing a service to be invoked a particular one of the nodes (Step 713 Col. 13 Ln. 36 – 42); determining one or more selected software components to start in each node (figure 3 Col. Ln. 53 – 61, figure 6 Col. 10 Ln. 51 – 67, Col. 12 Ln. 1 - 7); and the services starting the selected

software components in a particular one of the nodes of the processing system (Col. 11 Ln. 1 – 17, Col. 12 Ln. 7 – 20).

5. Held is however silent with reference to causing a service to be invoked in plurality of nodes/starting selected software components in plurality of nodes.

6. Daly teaches causing a service to be invoked in plurality of nodes/starting selected software components in plurality of nodes (figure 5A Col. Ln. 8 – 12).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Daly and Held because the teaching of Daly would improve the system of Held by providing a single entry point through which administration of all network services on the network is initiated (Col. 7 Ln. 23 – 27).

8. As to claim 2, Held teaches the method of claim 1, wherein causing the services to be invoked comprises causing WINDOWS services (“...window system... Col. 6 Ln. 40 – 42).

9. As to claim 3, Held teaches the method of claim 2, further comprising invoking the services with a WINDOWS service control manager module (“...window system... Col. 6 Ln. 40 – 42).

10. As to claim 5, Held teaches the method of claim 1, wherein starting the selected software components comprises starting software components defined as WINDOWS services (“...window system... Col. 6 Ln. 40 – 42).

11. As to claim 7, the method of claim 1, further comprising running an instance of a manager module in each node, the instance of the manager module in each node responsive to the start routine to invoke the services (Client Service Control Manager 707 Col. 12 Ln. 1 – 5, Server Service Control Manager 716 Col. 13 Ln. 33 – 42).

12. As to claim 9, Held teaches the method of claim 1, wherein the first one of the nodes is a master node, wherein launching the start routine is performed in the master node (Col. 13 Ln. 33 – 42).

13. As to claim 10, Daly teaches the method of claim 7, further comprising the start routine communicating requests to manager module instances in the nodes to start corresponding services (Server Manager Component 104 Col. 7 Ln. 17 – 27).

14. As to claim 11, Daly teaches the method of claim 1, wherein causing the services to be invoked comprises causing one service to be invoked for each software component (Col. 7 Ln. 17 – 27).

15. As to claim 20, Held teaches a database system comprising: a plurality of nodes (figure 6); database software components executable in corresponding nodes (figures 6/7 Col. 10 Ln. 15 – 67); and a manager module executable to control the database software components in the plural nodes (Client Service Control manager 602, Server

Art Unit: 2126

Service Control Manager 606, Client Service Manager 707, Server Service Control Manager 716 Col. 10 Ln. 15 – 67, Col. 11 Ln. 43 – 67, Col. 12 Ln. 1 – 40).

16. Held does not explicitly teach enabling a monitoring module to monitor statuses of the database software components in the nodes.

17. Daly teaches enabling a monitoring module to monitor statuses of the database software components in the nodes (Col. 7 Ln. 8 – 16).

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Daly and Held because the teaching of Daly would improve the system of Held by providing a single entry point through which a network administrators can browse and select the services they wish to administer on the network as well as monitor these individual network services and server from a common point (Col. 7 Ln. 32 – 36).

19. As to claim 23, Daly teaches the method of claim 1; wherein the processing system comprises a parallel database system, and wherein starting the selected software components comprises starting database software components (figure 5A Col. Ln. 8 – 12).

20. As to claim 26, Daly teaches the method of claim 1, further comprising each service monitoring a status of a corresponding software component. (Col. 7 Ln. 8 – 16).

Art Unit: 2126

27. As to claim 27, Daly teaches the method of claim 1, further comprising each service monitoring for termination of a corresponding software component (Col. 7 Ln. 8 – 16).

**21. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,802,367 to Held et al. in view of U.S. Pat. No. 5,748,896 to Daly et al. as applied to claim 23 above, and further in view of U.S. Pat. No. 5,613,148 to Bezviner et al.**

22. As to claim 24, Held and Daly are silent with reference to the method of claim 23, wherein starting the database software components comprises starting a query coordinator in each node to process database queries.

23. Bezviner teaches the method of claim 23, wherein starting the database software components comprises starting a query coordinator in each node to process database queries (Step 510 "...SOMD\_ObjMgr..." Col. 8 Ln. 41 – 52).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bezviner, Daly and Held because the teaching of Bezviner would improve the system of Held and Daly by managing communications to a server process that provide access to database or printer resources (Col. 6 Ln. 59 – 61, Col. 8 Ln 41 – 42).

Art Unit: 2126

25. As to claim 25, Bezviner teaches the method of claim 24, wherein starting the database software components comprises starting a data server in each node to control access of data in storage (Col. 8 Ln. 41 – 52).

**26. Claims 13-16,19,21 and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,613,148 to Bezviner et al. in view of U.S. Pat. No. 5,802,367 to Held et al.**

27. As to claim 13, Bezviner teaches a database system comprising (figures 5B/6 Col. 7 Ln. 39 – 64, Col. 8 Ln. 31 – 67): a plurality of nodes figures (figures 4/5B/5C/5D); software components executable in corresponding nodes (“...client processs...”, “...SOMDServer proxy...”, “...target object...” Col. 7 Ln. 39 – 64, “...client process...”, “...SOMD\_ObjMgr object...”, “...target object...” Col. 8 Ln. 31 – 67) and the software components comprising a query coordinator in each node to process database queries (figure 6 (Step 520) Col. 8 Ln. 47 – 54).

28. Bezviner does not explicitly teach a manager module executable in the database system to invoke services to control starting of the software components and a start procedure executable in a first one of the nodes to invoke the services in respective nodes through the manager module.

29. Held teaches a manager module executable in the database system to invoke services to control starting of the software components (Service Control Manager 707



Art Unit: 2126

Col. 12 Ln. 30 – 56) and a start procedure executable in a first one of the nodes to invoke the services in respective nodes through the manager module

("...StartObjectServer..." Col. 12 Ln. 30 – 37, Col. 13 Ln. 33 – 38).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bezviner and Held because the teaching of Held would improve the system of Bezviner by providing a service control manager for assisting client programs in locating, launching and executing server code (Col. 6 Ln. 40 – 44).

31. As to claim 14, Held teaches the database system of claim 13, wherein the manager module comprises plural instances executable on corresponding nodes (Service Control Manager 707 Col. 12 Ln. 30 – 56, Service Control Manager 716 Col. 13 Ln. 36 – 42).

32. As to claim 15, Held teaches the database system of claim 13, wherein the manager module comprises a WINDOWS service control manager ("...window system... Col. 6 Ln. 40 – 42).

33. As to claim 16, Held teaches the database system of claim 13, wherein the services comprise WINDOWS services ("...window system... Col. 6 Ln. 40 – 42).

34. As to claim 19, Held teaches the database system of claim 13, wherein the start procedure comprises a start service and a program invokable by the start service (“...StartObjectServer...” Col. 12 Ln. 30 – 37, Col. 13 Ln. 33 – 38).

35. As to claim 21, Bezviner teaches an article comprising one or more machine-readable storage media containing instructions that when executed cause a database system having plural nodes (figures 4/5B/5C/5D) to: receive a command to start database software components in the plural nodes (“...activated...” Col. 49 – 59);

36. Bezviner does not explicitly teach launching a start routine in a first one of the nodes in response to the command; issue requests, from the start routine, to respective nodes; and in response to the requests, invoke services in respective nodes to start database software components.

37. Held teaches launching a start routine in a first one of the nodes in response to the command (Step 702 Col. 12 Ln. 30 – 33); issue requests, from the start routine, to respective nodes; and in response to the requests, invoke services in respective nodes to start database software components (Step 702 Col. 12 Ln. 30 – 37, Col. 13 Ln. 25 – 38).

38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bezviner and Held because the teaching of Held would improve the system of Bezviner by providing a service control manager for assisting client programs in locating, launching and executing server code (Col. 6 Ln. 40 – 44).

39. As to claim 28, Bezviner teaches the database system of claim 13, further comprising a storage, wherein the software components further comprise a data server in each node to control access to data in the storage (figure 6 Col. 8 Ln. 31 – 52).

40. As to claim 29, Bezviner and Held are silent with reference to the database system of claim 13, wherein each service is adapted to monitor for termination of a corresponding query coordinator, however it is inherent that once activated a thread or process would terminate at the end its execution.

41. As to claim 30, Held teaches the database system of claim 13, wherein the start procedure is adapted to be invoked in response to a request to start a database application (Step 702 Col. 12 Ln. 30 – 37, Col. 13 Ln. 25 – 38).

42. As to claim 31, see the rejection of claims 28 and 30 above.

43. As to claim 32, see the rejection of claim 29 above.

44. As to claims 33 and 35, see the rejection of claim 21 above.

45. As to claim 34, see the rejection of claims 21 and 28 above.

***Respons to Arguments***

46. Applicant's arguments with respect to claims 1-3,5,7,9-11,13-16,19-21 and 23-35 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

47. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,812,779 to Ciscen et al.: directed to data management and distribution including router processes for controlling data communications between child processes running on computers connected by a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
MENG-AL J. AN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

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Charles E Anya  
Examiner  
Art Unit 2126

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